

## PowerVerter APS X 3000W 24VDC 230V Inverter/Charger with Pure Sine Wave Output, Hardwired

MODEL NUMBER: **APSX3024SW**



### Description

Tripp Lite's APSX3024SW DC-to-AC inverter with automatic line-to-battery transfer and integrated charging system serves as an extended run UPS, a standalone power source or an automotive inverter. Supplies up to 3000 watts of continuous 230V sine wave AC power from any 24V battery or automotive DC source. When hardwire AC input is energized, commercial power passes through to connected equipment and the battery set is recharged via 3 stage, 23/90 amp charging system. In UPS mode, the APS system responds to blackouts and severe voltage fluctuations with a near instantaneous automatic transfer to battery-derived AC output. Includes a set of high current DC input terminals for simple installation (user supplies batteries and cabling - see owner's manual for recommendations). Passes sine wave utility or generator power during battery charging and UPS line power operation, and sine wave AC output in inverter and UPS backup modes. Built-in Automatic Voltage Regulation (AVR) corrects line power AC brownouts and overvoltages without using battery power during battery charging and UPS standby modes. Reliable large transformer design, with frequency control powers resistive electronic loads or large inductive motors, compressors and other items with high current needs on startup. Optional APSRM4 wired remote power switch with full status LEDs provides remote power inverter on/off switching and continuous status information (part# APSRM4 sold separately). Supports an unlimited amount of runtime with any number of user-supplied batteries connected. Highly adaptable to a variety of applications and site conditions with adjustable charger settings for wet/gel battery types and selectable line to battery power transfer voltages.

NOTE: To protect against high current draw that may occur during inverter failure, a fuse link rated at 250a should be positioned no more than 18" from the APSX3024SW's battery in the positive line.

### Features

- Supports 230V AC output from a 230V AC line power source or 24V DC battery source
- 3000W continuous sinewave AC output in inverter mode

### Highlights

- 24V DC or 230V (selectable) AC input & output; 230V, 50/60 Hz, pure sine wave output (hardwired)
- 3000 watts continuous, 4500 watts OverPower and 6000 watts DoubleBoost inverter output
- 3-stage, 23/90 amp selectable wet/dry cell battery charger; Auto Transfer Switching
- Automatic Voltage Regulation corrects brownouts and overvoltages without using battery power

### Applications

Versatile inverter/charger system with auto-transfer switching serves as an automotive inverter for RVs, over-the-road trucking, conversion vans, high humidity environments and fleet service vehicles; a standalone alternative power source for off-grid, alternative energy or export applications and as an uninterruptible power supply (UPS) for items compatible with selectable half-cycle (10ms) or full-cycle (20ms) transfer times. NOTE: For sump pump applications, Tripp Lite recommends its "UT" Utility Truck Inverter/Chargers.

### Package Includes

- APSX3024SW Inverter/Charger
- Instruction manual with warranty information



- Double Boost output supports momentary start-up loads up to 200% of the continuous rating for up to 10 seconds (see specification chart) - OverPower output supports longer duration overloads to 150% for up to 60 seconds
- 3-stage, selectable 23/90 amp battery charger with adjustable settings for wet/gel battery types
- 3-position operating mode switch supports "AUTO" mode to enable automatic transfer between DC and AC modes, CHARGE-ONLY to maintain a full battery charge when AC is present without auto transfer and SYSTEM OFF settings
- Set of 6 front panel LEDs display continuous status information
- Set of 4 dip switches support AC input selection of 230V, selectable 50 /60Hz frequency, and selectable full or half cycle transfer times
- Set of 4 dip switches support wet/gel battery charging profiles, adjustable 260/270V (230V) high voltage auto transfer during overvoltages and selectable 150/60V / 170/180V (230V) AC low voltage auto transfer during brownouts
- Set of 4 additional dip switches support battery equalization program and battery charger low / high settings
- Automatic overload and thermal (overheating) shutoff
- Front panel remote control connector enables remote off/on switching (APSRM4 sold separately)
- Load sensing control dial enables adjustable load threshold required to automatically turn the inverter on and off in DC mode as load conditions change
- Automatic Generator Starter jack enables user configuration of automatic generator start-up as inverter batteries drop to 23.0 VDC and generator shutoff as inverter batteries are recharged to 28.2 VDC.
- Remote battery temperature sensing connection function prolongs battery life by adjusting the charge float voltage level based on battery temperature

## Specifications

OVERVIEW	
Style	Heavy-duty with built-in battery charger
OUTPUT	
Frequency Compatibility	50 / 60 Hz
Output Receptacles	Hardwire
Output (Watts)	3000
Continuous Output Capacity (Watts)	3000
Peak Output Capacity (Watts)	6000
Output Nominal Voltage	230V
Output Voltage Regulation	LINE POWER (AC): Maintains 230V nominal sine wave output from line power source. INVERTER POWER (AC): Maintains sine wave output voltage of 230 VAC (+/-5%).
Output Frequency Regulation	50/60 Hz (+/- 0.3 Hz)
INPUT	
Nominal Input Voltage(s) Supported	230V AC
Recommended Electrical Service	DC INPUT: Requires 24VDC input source capable of delivering 145A for the required duration (when used at full continuous capacity - DC requirements increase during OverPower and DoubleBoost operation).
Maximum Input Amps	28
Input Connection Type	DC INPUT: Set of DC bolt-down terminals. AC INPUT: Hardwire via built in terminal strip with cover plate
Voltage Compatibility (VAC)	230



Voltage Compatibility (VDC)	24
<b>BATTERY</b>	
Expandable Battery Runtime	Runtime is expandable with any number of user supplied wet or gel type batteries
DC System Voltage (VDC)	24
Battery Pack Accessory (Optional)	98-121 sealed lead acid battery (optional)
Battery Charge	Selectable 23 / 90 amp
<b>VOLTAGE REGULATION</b>	
Voltage Regulation Description	Includes automatic voltage regulation to correct brownouts and overvoltages back to usable levels
Overvoltage Correction	Overvoltages are automatically reduced by 10%
Brownout Correction	Brownouts are automatically boosted by 10% and 20%
<b>LEDS ALARMS &amp; SWITCHES</b>	
Switches	3 position on/off/remote switch enables simple on/off power control plus "auto/remote" setting that enables distant on/off control of the inverter system when used in conjunction with optional APSRM4 accessory when used in inverter mode. In AC uninterrupt
Front Panel LEDs	Set of 6 LEDs offer continuous status information on load percentage (6 levels reported) and battery charge level (7 levels reported). See manual for sequences.
<b>PHYSICAL</b>	
Shipping Dimensions (hwd / in.)	20.080 x 18.430 x 22.520
Shipping Dimensions (hwd / cm)	51.00x46.81 x 57.20
Shipping Weight (lbs.)	87
Shipping Weight (kg)	39.46
Unit Dimensions (hwd / in.)	10.08 x 8.90 x 12.40
Unit Dimensions (hwd / cm)	25.60 x22.606 x 31.496
Unit Weight (lbs.)	64.8
Unit Weight (kg)	29.39
Material of Construction	Metal
<b>ENVIRONMENTAL</b>	
Relative Humidity	0-95% non-condensing
Operating Temperature	32-104 Fahrenheit / 0-40 Celcius
<b>LINE / BATTERY TRANSFER</b>	
Transfer Time (Line Power to Battery Mode)	Dip-switch selectable 20 millisecond (full cycle) / 10 millisecond (half-cycle) transfer times which are compatible with many computers, servers and networking equipment - verify transfer time compatibility of loads for UPS applications



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Low Voltage Transfer to Battery Power	In 230V AC "auto" mode, inverter/charger switches to battery mode as line voltage drops to 170V AC (user adjustable to 180V).
High Voltage Transfer to Battery Power	In 230V AC "auto" mode, inverter/charger switches to battery mode as line voltage increases to 260V (user adjustable to 270 - see manual).
<b>SPECIAL FEATURES</b>	
Remote Control Capability	Yes
TVSS Grounding	Main grounding lug connects inverter/charger to earth or vehicle chassis ground
<b>WARRANTY</b>	
Product Warranty Period (U.S. & Canada)	2-year limited warranty
Product Warranty Period (International)	2-year limited warranty
Product Warranty Period (Mexico)	2-year limited warranty
Product Warranty Period (Puerto Rico)	2-year limited warranty

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